

Remarks

Claims 4-14 were submitted for examination. Claims 5-8 and 12-14 have been cancelled. Claims 4-8 stand rejected. Claims 9-11 are allowed. Claim 4 has been amended.

Applicants thank the Examiner for the indication of allowable subject matter.

Election/Restrictions

Claims 12-14 have been cancelled without prejudice.

Claim Objections

Claim 6 has been cancelled without prejudice.

35 USC 102 rejections

Claim 4 stands rejected under 35 U.S.C. 102(e) as being anticipated by Witek et al. (U.S. Pat. No. 6,146,970). The Office Action fails to present a prima facie case of anticipation for Applicants' claims. "[F]or anticipation under 35 U.S.C. 102, the reference must teach *every aspect* of the claimed invention ..." MPEP 706.02 (emphasis added). "The identical invention must be shown in as complete detail as contained in the ... claim." *Richardson v., Suzuki Motor Co.*, 868 F. 2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The cited references simply fail to disclose every aspect of the claimed invention. Applicant respectfully traverses this rejection because the cited references do not disclose or suggest every element of any claim, as the following analysis shows.

Claims 5 and 8 stand rejected under 35 U.S.C. 102(b) as being anticipated by Sung et al. (U.S. Pat. No. 5,734,607). Claims 5 and 8 have been cancelled.

CLAIM 4

Regarding Claim 4, Witek et al. at least fails to teach “removing all of said grown oxide from said trench” as recited in amended Claim 4.

The Office Action asserts that the limitations of Claim 4 are taught in Witek et al. with reference to oxide 312 in FIG. 18. As noted, oxide 312 is removed only from the top sidewall portions of the trench 310. Note that all of the oxide 312 cannot be removed due to the plug regions 316b formed in the trench over oxide 312.

The oxide growth/oxide removal/oxide growth process of the claimed invention rounds the silicon corners 119 of trench 114, avoiding sharp trench corners that can cause a weakness in the subsequently formed tunnel oxide at the corners. See FIGs. 4-5 and Specification, page 11 line 26 – page 12 line 1.

Accordingly, for at least the foregoing reasons, Witek et al. fails to teach the limitations of Claim 4. The rejection of Claim 4 is thus unsupported, and must be withdrawn.

35 USC 103 rejections

Claim 6 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. (US 2001/0012661 A1) in view of Chi et al. (U.S. Pat. No. 6,184,084 B1). Claim 6 has been cancelled.

Claim 7 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (U.S. Pat. No. 5,597,751). Claim 7 has been cancelled.

Conclusion

For the foregoing reasons, it is submitted that the application is in condition for allowance, and indication of allowance by the Examiner is respectfully requested. If the Examiner has any questions concerning this application, he or she is requested to telephone the undersigned at the telephone number shown below as soon as possible. If any fee insufficiency or overpayment is found, please charge any insufficiency or credit any overpayment to Deposit Account No. 02-2666.

Respectfully submitted,

Intel Corporation

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Rita M. Wisor
Reg. No. 41,382

Attorney Phone Number: (512) 732-3923

Correspondence Address: Blakely Sokoloff Taylor & Zafman, LLP
12400 Wilshire Blvd
Seventh Floor
Los Angeles, California 90025-1026